

RKP454KE

Ultra small Package Composite Pin Diode for Antenna Switching

REJ03G1697-0100

Rev.1.00

Jun 05, 2008

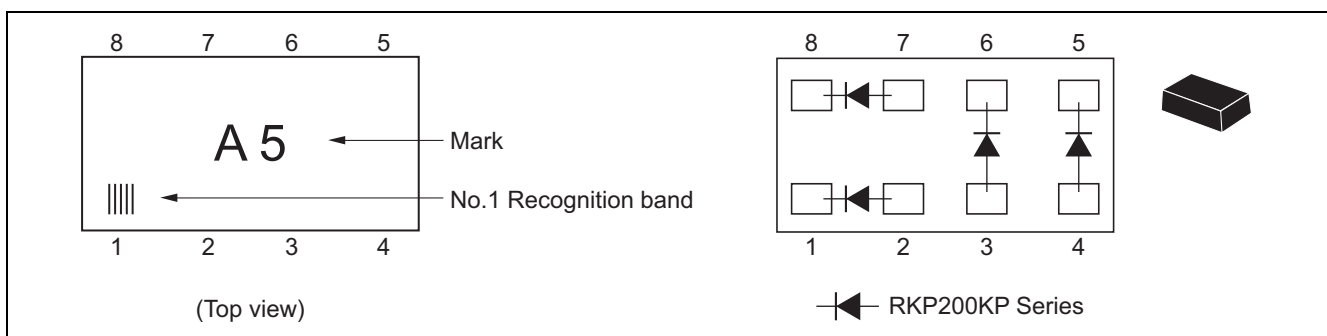
Features

- An optimal solution for antenna switching in mobile phones.
- Low capacitance. ($C = 0.35 \text{ pF max}$)
- Low forward resistance. ($r_f = 1.3 \Omega \text{ max}$)
- Halogen free, Environmental friendly Package include Conformity to RoHS Directive.
- Ultra small Package ($1.63 \text{ mm} \times 0.67 \text{ mm}$ Size leadless type) of diode array with four same kind of elements.

Ordering Information

Part No.	Laser Mark	Package Name	Package Code
RKP454KE	A5	MP6-8	PXSN0008ZA-A

Pin Arrangement



Absolute Maximum Ratings

(Ta = 25°C)

Item	Symbol	Value	Unit
Reverse voltage	V_R	30	V
Forward current	I_F	100	mA
Power dissipation	P_d^{*1}	100	mW
Power dissipation	P_d^{*2}	200	mW
Junction temperature	T_j	125	°C
Storage temperature	T_{stg}	-55 to +125	°C

Notes: 1. Per one device.

2. Value at Package total.

Electrical Characteristics

(Ta = 25°C)

Item	Symbol	Min	Typ	Max	Unit	Test Condition
Forward voltage	V_F	—	—	1.0	V	$I_F = 10 \text{ mA}$
Reverse current	I_R	—	—	100	nA	$V_R = 30 \text{ V}$
Capacitance	C	—	—	0.35	pF	$V_R = 1 \text{ V}, f = 1 \text{ MHz}$
Forward resistance	r_f	—	—	1.3	Ω	$I_F = 10 \text{ mA}, f = 100 \text{ MHz}$
ESD-Capability ^{*1}	—	100	—	—	V	C = 200 pF, R = 0 Ω , Both forward and reverse direction 1 pulse.

Notes: 1. Failure criterion ; $I_R > 100 \text{ nA}$ at $V_R = 30 \text{ V}$

2. Please do not use the soldering iron due to avoid high stress to the MP6-8 package.

Main Characteristic

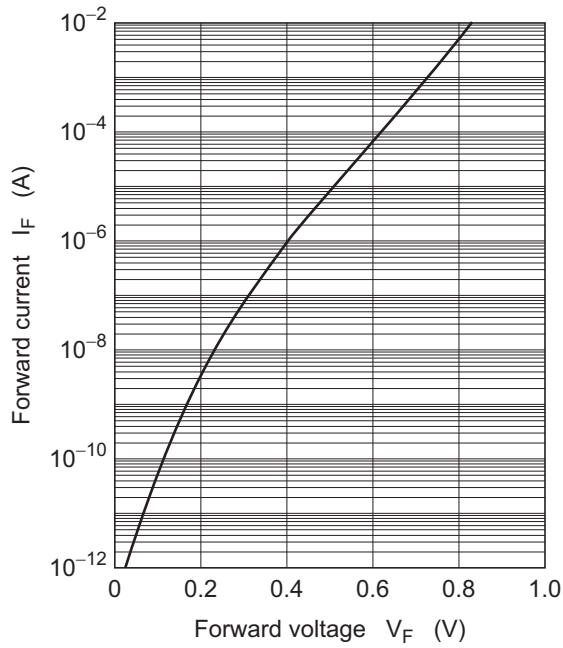


Fig.1 Forward current vs. Forward voltage

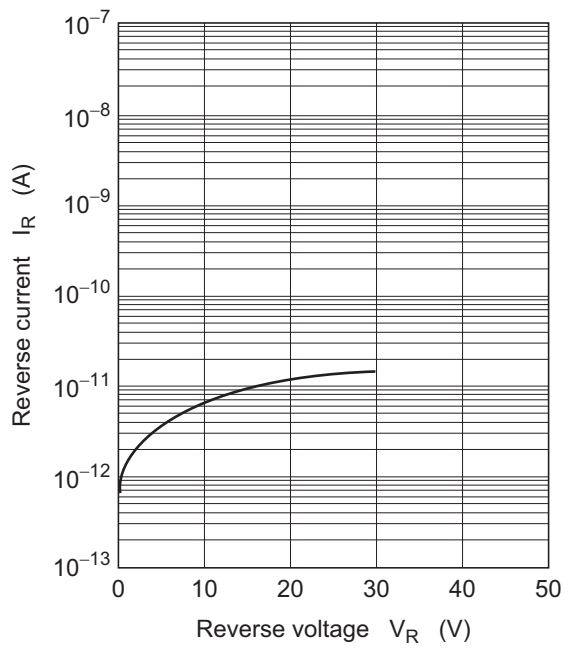


Fig.2 Reverse current vs. Reverse voltage

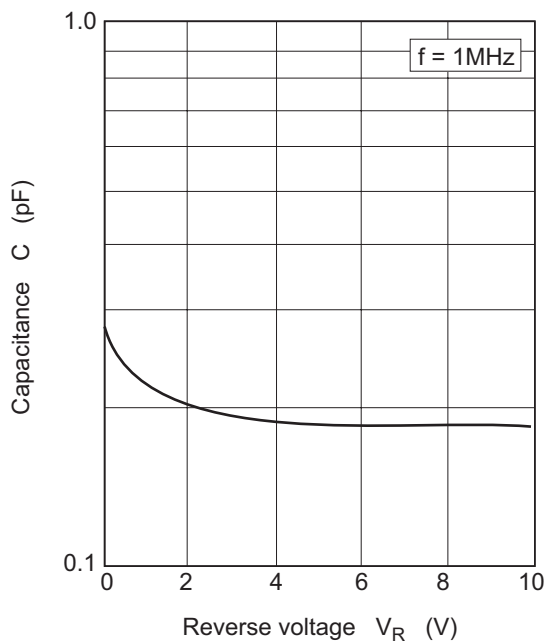


Fig.3 Capacitance vs. Reverse voltage

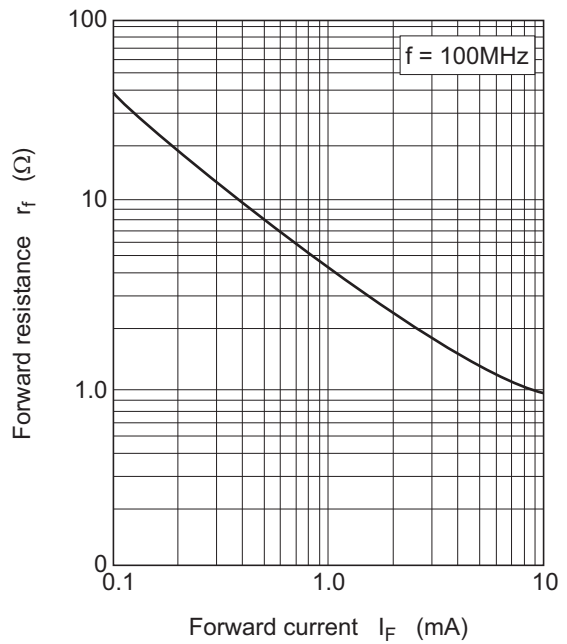
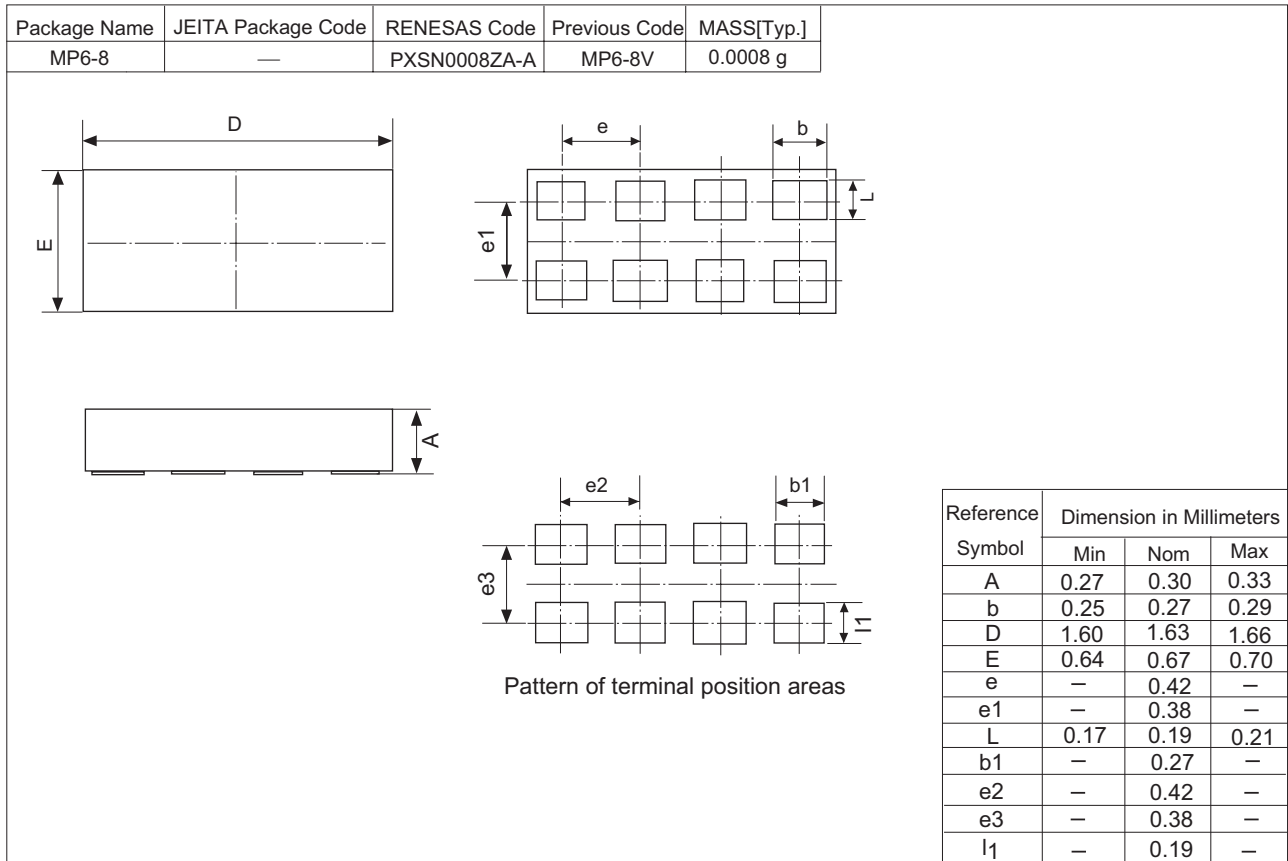


Fig.4 Forward resistance vs. Forward current

Package Dimensions



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April 1st, 2010
Renesas Electronics Corporation

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